

**299-E25-184 (A6594)
Log Data Report**

Borehole Information:

Borehole: 299-E25-184 (A6594)		Site: UPR 200-E-27			
Coordinates (WA St Plane)		GWL¹ (ft): None		GWL Date: 01/04/07	
North (m) 136006.49	East (m) 575323.615	Drill Date 08/80	TOC Elevation 697.00 ft	Total Depth (ft) 54	Type Cable

Casing Information:

Casing Type	Stickup (ft)	Outer Diameter (in.)	Inside Diameter (in.)	Thickness (in.)	Top (ft)	Bottom (ft)
Steel	2.6	6 5/8	6	5/16	2.6	54

Borehole Notes:

The logging engineer measured the casing diameter of the 6-in. casing using a caliper and steel tape. Logging data acquisition is referenced to the TOC.

Logging Equipment Information:

Logging System: Gamma 4N	Type: SGLS (60%) SN: 45-TP22010A
Effective Calibration Date: 04/06/06	Calibration Reference: DOE-EM/GJ1177-2006
Logging Procedure: HGLP-MAN-002, Rev. 0	

Logging System: Gamma 4H	Type: NMLS SN: H310700352
Effective Calibration Date: 11/22/06	Calibration Reference: HGLP-CC-002
Logging Procedure: HGLP-MAN-002, Rev. 0	

Spectral Gamma Logging System (SGLS) Log Run Information:

Log Run	1	2 Repeat		
Date	01/04/07	01/04/07		
Logging Engineer	Spatz	Spatz		
Start Depth (ft)	3.0	16.0		
Finish Depth (ft)	53.0	26.0		
Count Time (sec)	100	100		
Live/Real	R	R		
Shield (Y/N)	N	N		
MSA Interval (ft)	1.0	1.0		
ft/min	N/A ²	N/A		
Pre-Verification	DN571CAB	DN591CAB		
Start File	DN581000	DN591000		
Finish File	DN581050	DN591010		
Post-Verification	DN581CAA	DN591CAA		
Depth Return Error (in.)	N/A	N/A		
Comments	No fine-gain adjustment.	No fine-gain adjustment.		

Neutron Moisture Logging System (NMLS) Log Run Information:

Log Run	3	4 Repeat			
Date	01/05/07	01/05/07			
Logging Engineer	Spatz	Spatz			
Start Depth (ft)	3.0	16.0			
Finish Depth (ft)	53.5	26.0			
Count Time (sec)	15	15			
Live/Real	R	R			
Shield (Y/N)	N	N			
Sample Interval (ft)	0.25	0.25			
ft/min	1.0	1.0			
Pre-Verification	DH372CAB	DH372CAB			
Start File	DH372000	DH372203			
Finish File	DH372202	DH372243			
Post-Verification	DH372CAA	DH372CAA			
Depth Return Error (in.)	N/A	- 0.5			
Comments	None	None			

Logging Operation Notes:

Logging was conducted with a centralizer on each sonde and measurements are referenced to top of casing.

Analysis Notes:

Analyst:	Henwood	Date:	02/28/07	Reference:	GJO-HGLP 1.6.3, Rev. 0
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Pre-run and post-run verifications for the logging systems were performed before and after the day's data acquisition. The acceptance criteria were met.

A casing correction for a 5/16-in. thick casing was applied to the SGLS data. NMLS data were corrected for a 6-in. borehole.

SGLS spectra were processed in batch mode using APTEC SUPERVISOR to identify individual energy peaks and determine count rates. Concentrations were calculated with an EXCEL worksheet template identified as G4NApr06.xls using an efficiency function and corrections for casing and dead time as determined from annual calibrations. The NMLS count rate data were converted to percent volumetric moisture.

Results and Interpretations:

Cs-137 was detected at a few locations using the routine processing software. Upon inspection of the spectra that indicated Cs-137, it was determined these detections are statistical fluctuations and are not considered valid.

Moisture data indicate some variability.

The SGLS and NMLS repeat logs show good repeatability.

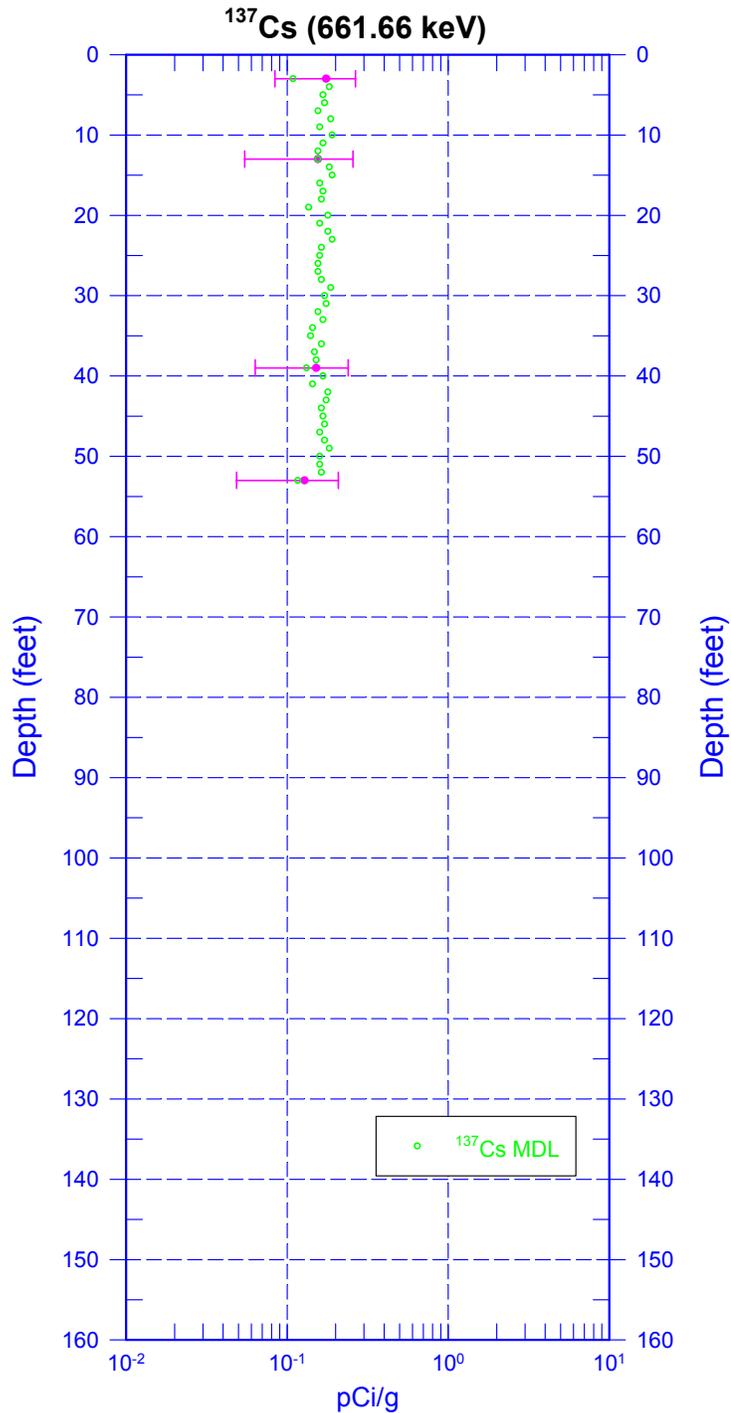
List of Log Plots:

Depth Reference is top of casing
Depth Scale - 20 ft/inch except for repeat logs

Man-made Radionuclides
Natural Gamma Logs
Combination Plot
Total Gamma, Dead Time, & Moisture
Repeat of Natural Gamma Logs
Repeat of Moisture

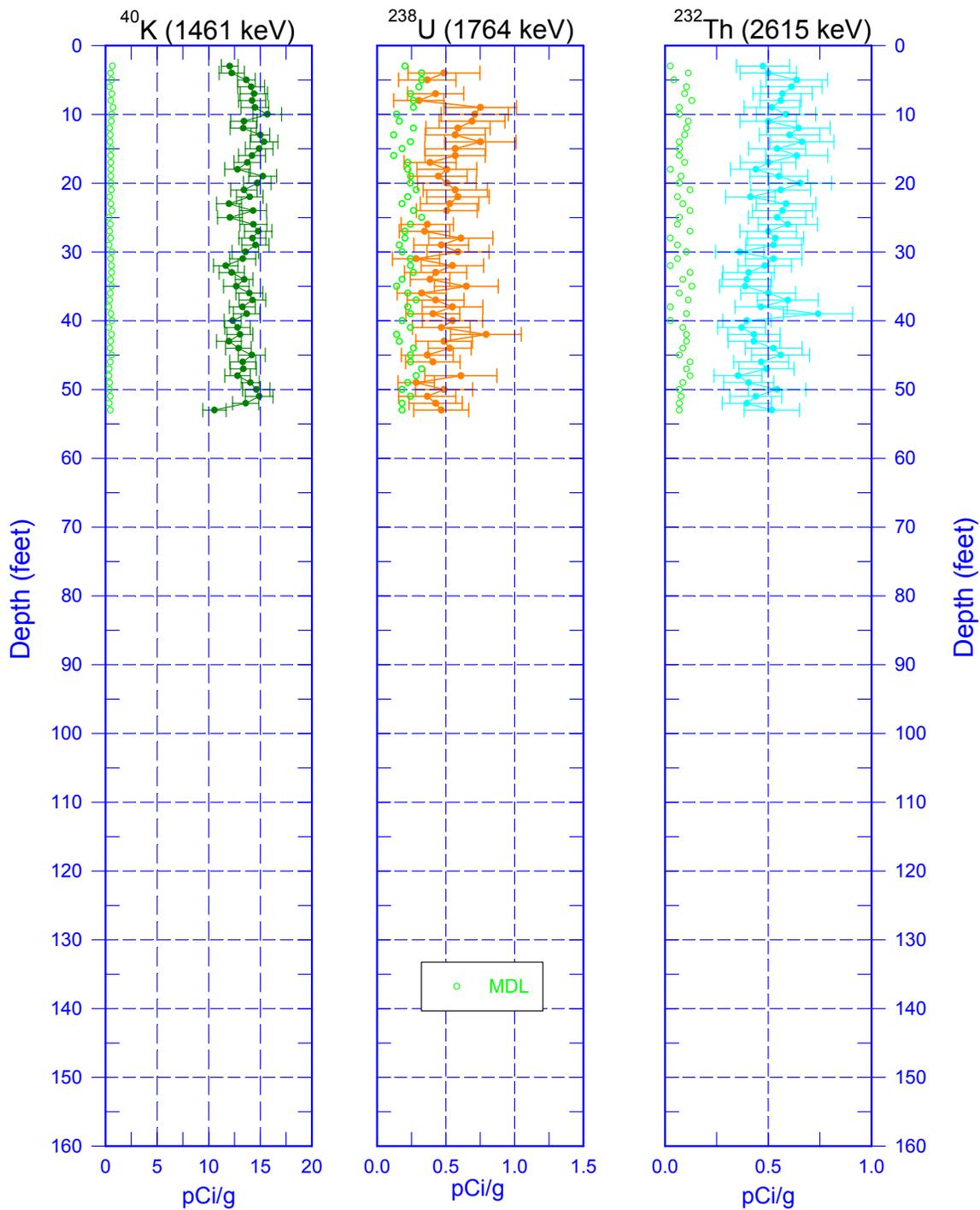
¹ GWL – groundwater level

299-E25-184 (A6594) Manmade Radionuclides



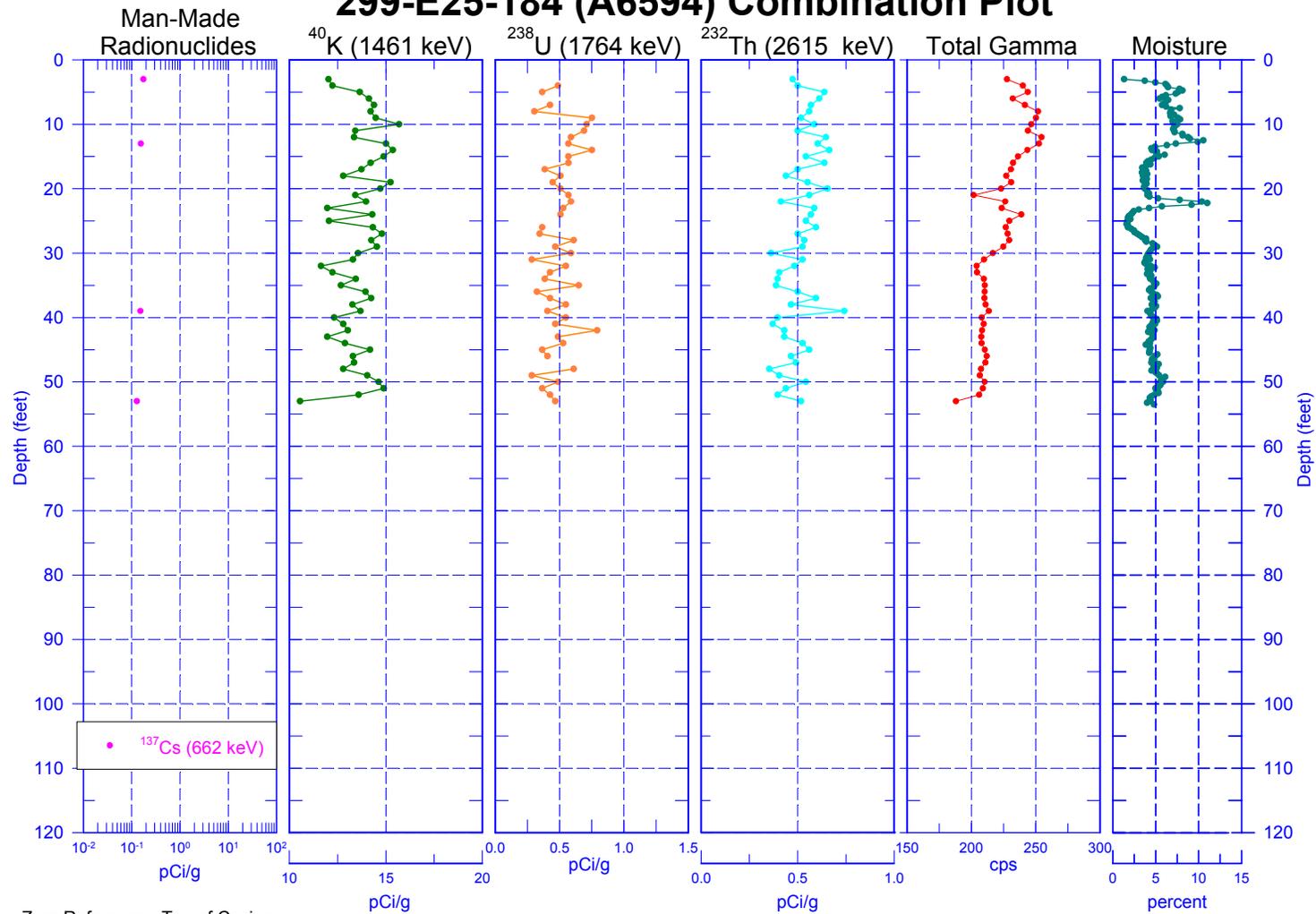
Zero Reference - Top of Casing

299-E25-184 (A6594) Natural Gamma Logs



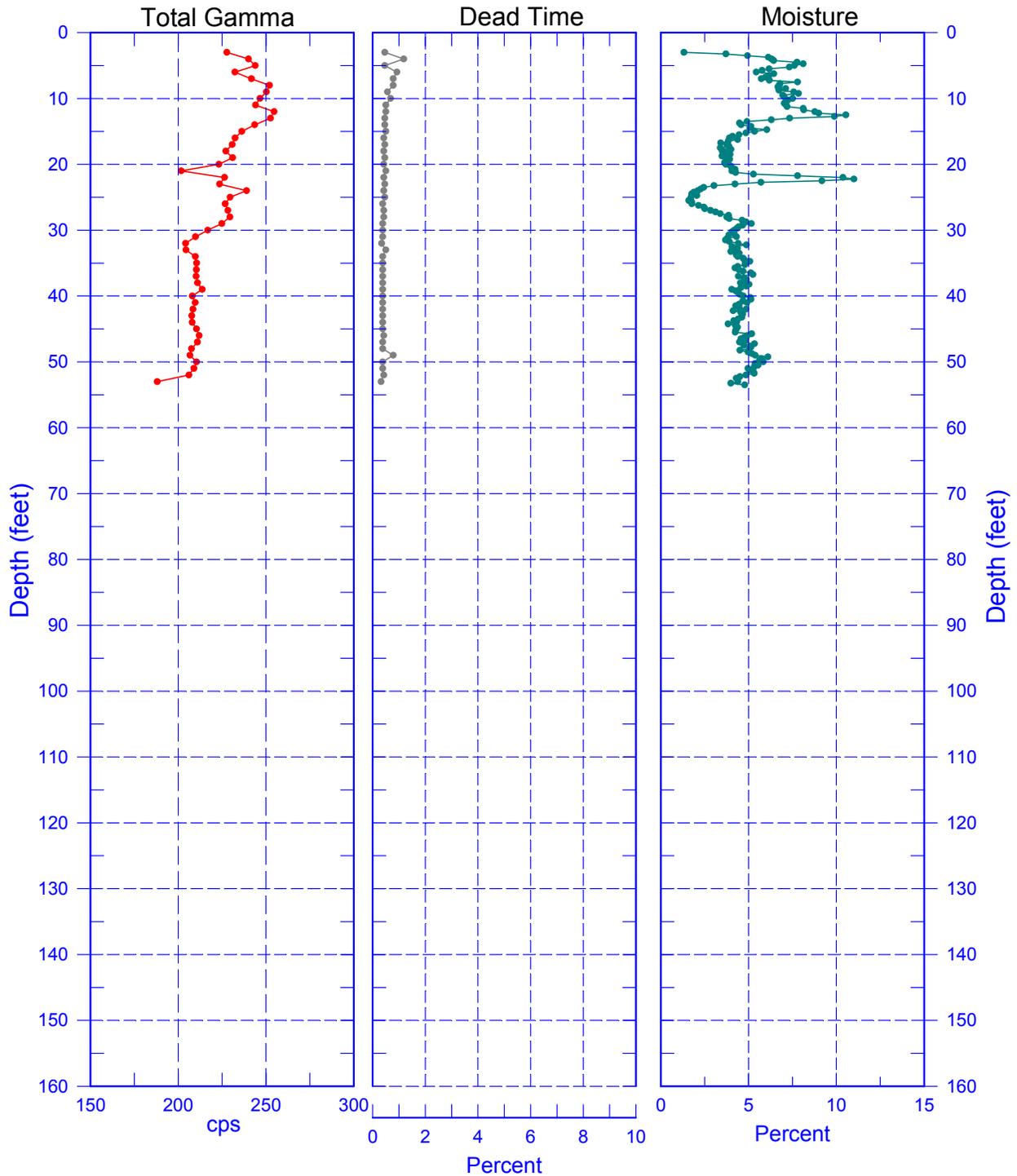
Zero Reference = Top of Casing

299-E25-184 (A6594) Combination Plot



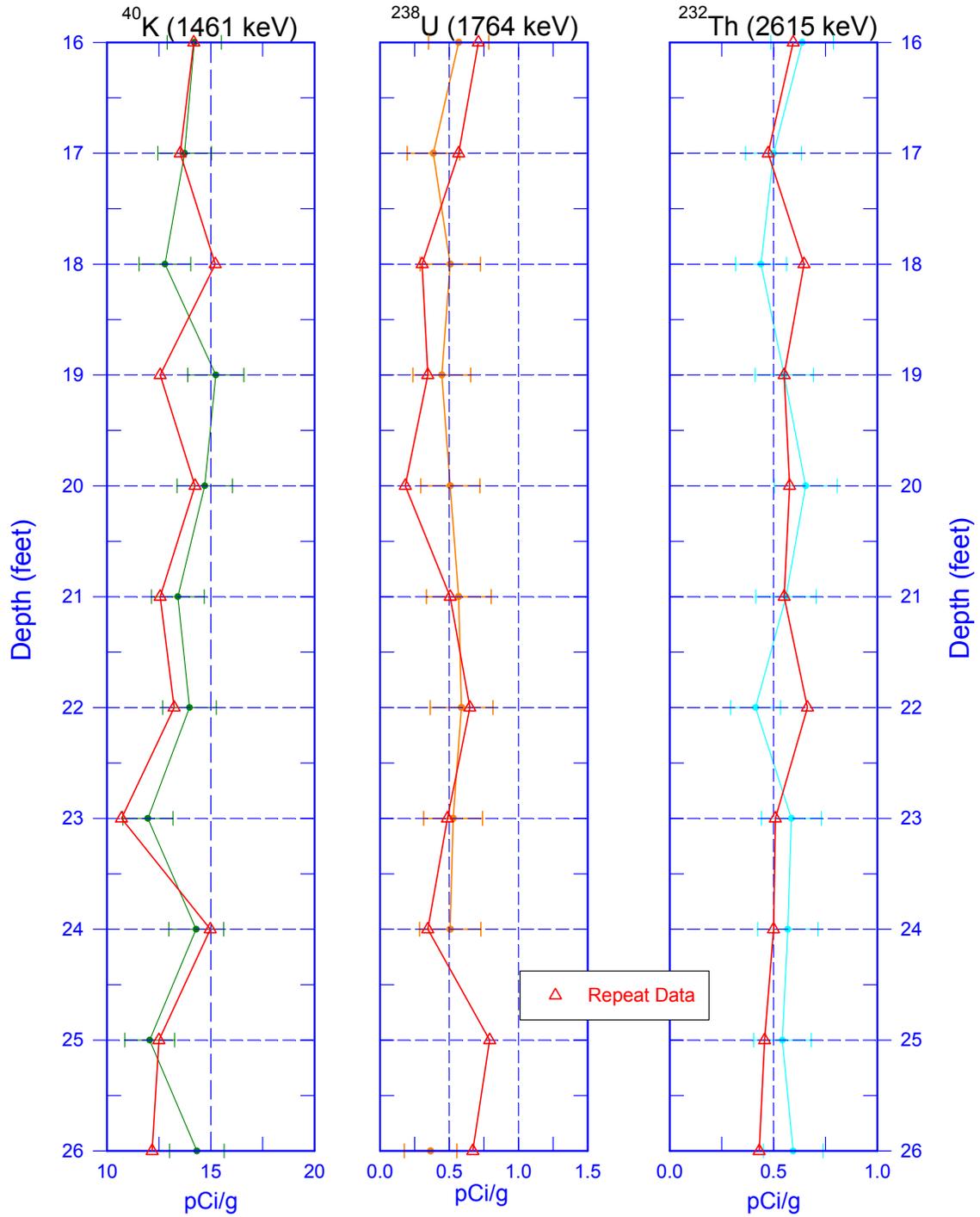
Zero Reference - Top of Casing

299-E25-184 (A6594) Total Gamma, Dead Time & Moisture



Reference - Top of Casing

299-E25-184 (A6594) Repeat of Natural Gamma Logs



Zero Reference = Top of Casing

299-E25-184 (A6594) Repeat of Moisture

